

# Hailey to Ketchum 138 kV Transmission Line

## Project Fact Sheet

### Project Need

The north valley (between Hailey and Ketchum) is currently served by a single transmission line. A second transmission line to the north is critical for reliable electric service, and a plan now exists to provide for that.

The Wood River Electrical Plan was developed through a collaborative process with Idaho Power and the Wood River Community Advisory Committee (CAC). It describes the transmission facilities needed to reliably serve the valley into the future. Idaho Power is initiating the first project recommended by the CAC — a 138,000-volt (138 kV) transmission line between Hailey and Ketchum.

The CAC, on behalf of valley customers, recognized the need for a second transmission line from Hailey to the Ketchum/Sun Valley area. This new line will serve as a second source to the north valley to help minimize the risk of a catastrophic outage to the citizens and businesses of the Ketchum and Sun Valley areas. It will also provide additional capacity for future growth.

Idaho Power is proceeding according to the Wood River Electrical Plan. The project team is currently preparing preliminary line designs and route options for the new transmission line.

Future phases of the project include additional electric infrastructure to the south, which will continue to enhance electric reliability for the entire valley. We've conducted extensive maintenance on the two transmission lines that come into Hailey, and we've started the permitting process with the Bureau of Land Management (BLM) to rebuild the King-Wood River 138 kV line.

### Transmission Line Details

The 138 kV transmission line route will be approximately 12 miles and connect the Wood River Substation north of Hailey with the Ketchum Substation on Sun Valley Road. The design of the poles and final route will be decided through a community involvement process.

### Substation Upgrades

To accommodate the new line into the substations, work must be done inside the Wood River Substation and the Ketchum Substation.

### Project Schedule

Community Involvement	2010–2014
Line Easements	2015
Engineering Design	2010–2015
Construction	2016
Station & Line In Service	2016

### Questions? Comments?

If you have questions about the project, or have information you wish to be considered, please contact:

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# Frequently Asked Questions

## Why is this power line needed?

A second transmission line to the north is critical for reliable electric service, and a plan now exists to provide for that needed reliability. A second redundant line provides back-up for the other line — which will remain in service. An outage on the existing line during peak winter cold temperatures could be catastrophic without it.

Also, the Wood River Valley and customers everywhere are experiencing an increase in electricity use, which drives the demand for reliable electric service. Homes and businesses have multiple PCs, TVs, lighting, furnaces or other electronics they rely on, particularly in the winter with the ski industry and year-round tourism.

## How was the need for the line determined?

A community advisory committee (CAC) was convened in 2007 and through a collaborative process with Idaho Power, developed the Wood River Electrical Plan (WREP), which had multiple electric infrastructure recommendations. It describes the transmission facilities needed to reliably serve the valley into the future. Following that planning effort, Idaho Power has initiated the first project recommended by the CAC — the 138 kV transmission line between Hailey and Ketchum.

The company has a comprehensive resource planning effort called the Integrated Resource Plan, which includes infrastructure needs. We address future energy obligations and anticipated regulation while minimizing the impact to customers and owners; we include Idaho Power's energy efficiency programs which help balance growing energy demand with variable supply; and recognize Idaho Power's need to support increased economic activity and customer use. A significant component of providing reliable service to customers is securing necessary resource infrastructure, such as the Hailey-Ketchum 138 kV line.

## What is the project cost?

The cost of the project depends on the final route and design. A 138 kV overhead transmission line costs approximately \$350,000 to \$400,000 per mile to construct. The line will be approximately 12 miles, depending on the final route.

## Can the power line be put underground?

Underground construction is an option, but there are some factors to consider. As regulated by the Idaho Public Utilities Commission (IPUC), Idaho Power is obligated to build its infrastructure in the most cost effective manner possible. Idaho Power develops transmission project designs that provide for least cost while adhering to consistent standards for service throughout its service area. The IPUC allows recovery of those reasonable costs. To the extent that customers desire the company to pursue alternate designs, such as underground transmission, at a higher cost, it is the company's position, supported by the IPUC, that the customer requesting the alternate design is responsible for the additional costs. As described above, a 138 kV overhead transmission line costs approximately \$350,000 to \$400,000 per mile to construct. A similar transmission line placed underground costs about 10 times that amount.

## Who pays that cost?

As mentioned above, the customer(s) requesting underground service cover costs that exceed the least-cost design, as regulated by the IPUC. Customers, such as a city or county, can pursue options such as creating a Local Improvement District to raise funds for such a project.

## How will the residents be involved in the project process?

Idaho Power values the input and ideas of local community members for location and design of its projects. Many information and impact sessions have been held with residential and business groups throughout the project area to exchange information and ideas for this transmission line. Project open houses also were held and information continues to be shared through other avenues such as the news media, website ([www.idahopower.com/woodriver](http://www.idahopower.com/woodriver)), posters and mailings.

## Has the route been identified?

The WREP CAC has recommended some alternatives which have been analyzed thoroughly. To the extent possible, this line follows Highway 75. Meetings with landowners and other groups helped identify and refine routes to study. Community meetings, feedback and public input/work sessions also helped identify constraints for the line and opportunities for the route.

Currently a lower-voltage distribution line follows the highway. Options and ideas from the CAC include putting that line on the new poles with the transmission line; burying the distribution (at a significant cost increase) and putting only the transmission line overhead; burying the transmission line (an even greater cost increase); or a combination of overhead and underground design for the transmission line.

## How are those route options identified?

Using the recommendations from the WREP CAC, Idaho Power uses an internal route development process to consider all route options. This process includes collecting data on existing conditions of the area; reviewing studies and documentation; conducting field visits to understand terrain, constraints, existing corridors or other opportune areas; and coordinating with landowners, the public, permitting agencies, municipalities and other stakeholders to discuss the project.

## When will construction begin?

Construction initially was anticipated to begin in 2012, but will likely be later in 2016, pending permit applications.

## Can you add local generation, like a wind farm, to replace the need for a new line?

Part of the Idaho Power concession as a regulated utility is an obligation to reliably serve its customers. In fulfilling this obligation, Idaho Power forecasts energy usage by its customers and is required to have adequate resources (or access to energy markets) to reliably satisfy that demand. Electricity is not easily stored and for all practical purposes the instantaneous customer demand is generated at the moment of usage. The requirement to serve all instances of demand is the reason intermittent resources such as wind and solar are backed up by dispatchable generation. Wind and solar are not an instantaneous, dependable resource, and it is access to a dispatchable resource via a transmission line that satisfies Idaho Power's obligation to serve customers. A transmission line is the current proposal to reliably satisfy the Wood River Valley's instantaneous demand.

Even if local generation was part of the solution, transmission lines would still be needed to move the electricity from the local generation site to substations and customers.

The mandate to reliably serve means that even if significant small wind and solar units are deployed in the Wood River Valley, these resources will not satisfy Idaho Power's obligation to its customers. The inability to serve electricity needs is due to the risk of the wind and solar resources not generating at the instant the energy is required by the customer and adversely impacting the system.

## Is growth an issue in the Wood River Valley?

The Hailey Planning and Zoning Department received a report in 2010 that indicate the city's population will double by 2025. While that presents many growth-related challenges for infrastructure planning, Idaho Power is focused on serving the electric needs of Wood River Valley residents for today and the future.

## What will the transmission line and poles look like?

Design options preferred by the WREP CAC include low-profile steel poles that are about eight feet taller than the existing distribution poles.



Ketchum Substation — Existing condition



Ketchum Substation — New Control Building



Buttercup North — Existing condition



Buttercup North — New 138 kV with Distribution



Gimlet Area — Existing conditions



Gimlet Area — New 138 kV with Distribution — Option 1



Gimlet Area — New 138 kV with Distribution — Option 2